

ABSTRACT

The air cleaning fluorescent lamp is designed and prepared by coating the photocatalysis materials as nano-crystalline TiO_2 anatase or like as sol with some additive, made by sol-gel techniques on glass-fiber-cloth or sleeve to be acted
5 under visible light, then wrapping the cloth or placing the sleeve on a fluorescent lamp. When the lamp is lighted, white light is not only used for illumination, but also used on air cleaning by the fluorescence radiates on the surface of photocatalysis materials to generate free electron and electron hole pairs that will activate as the decomposition of the waste gas for air cleaning and self cleaning.